# 3R - <u>3/5</u>

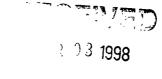
# REPORTS

DATE:

Public Service Company of New Mexico Alvarado Square MS 0408 Albuquerque, NM 87158

April 2, 1998

Mr. William Olson Hydrogeologist Oil Conservation Division 2040 So. Pacheco Santa Fe, New Mexico 87505





Cil Conservation Division

RE: 1998 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Bill:

PNM is pleased to submit the 1998 Annual Groundwater Report on Unlined Surface Impoundments in the San Juan Basin. Pursuant to PNM's Groundwater Management Program for Unlined Surface Impoundment Closures, the report details the ongoing investigation/remedial activities at unlined surface impoundments having groundwater contamination as identified by PNM. A list of groundwater sites reported in this document is provided below.

Cozzens B1 Dogie Compressor Station East Pit Dogie Compressor Station North Pit Florance 32A Florance Z 40 M Florance 44 Florance 47X Florance 124 Hampton 4M Honolulu Loop Line Drip Ice Canyon Drip Jacques 2A Mangum 1E McClanahan 22 McClanahan A2E McCoy Gas Com A1 Miles Federal 1E Miles Federal 1E Drip Randleman 1 Reid 16 Drip Sammons 2 Turner 1A Turner 3

Zachry 18E

#### PNM 1998 Groundwater Report

PNM plans to request closure of two of the above sites, the Cozzens B1 and the Sammons 2, in our April 30, 1998 filing of the San Juan Pit Closure Reports to the OCD Santa Fe office. If you have any questions regarding the contents of the report, please contact me at (505) 241-2974.

Sincerely,

Maureen Gannon
Project Manager

Attachment

cc:

Ingrid Deklau, WFS

Denny Foust, OCD-Aztec Office

Bill VonDrehle, WFS

#### PNM 1998 Groundwater Report

Colin Adams (w/o analytical results) Kathy Juckes Ron Johnson (w/o analytical results) Mark Sikelianos bcc:

PNMGS Well Site: Florance 40 M

#### **Groundwater Site Summary Report**

Quarter/Year: 2<sup>nd</sup>/97, 3<sup>rd</sup>/97, 4<sup>th</sup>/97 and 1<sup>st</sup>/98

Copies: WFS(1)
Operator (1)
NMOCD District Office (1)
NMOCD Santa Fe (1)

Telephone: 505-241-2974

Operator: Amoco

Sec: 21 Twn: 30N Rng: 08W Unit: G

Canyon: Gubernador

Vulnerable Class: Original

OCD Ranking: 20 Lead Agency: NMOCD

PNM is preparing a site summary report for submittal to the OCD detailing the activities, results and further actions at the Florance Z 40 M under separate cover. The report is titled, "Florance Z 40 M Free Product and Groundwater Contamination," and will be submitted to the OCD by April 30, 1998.

Public Service Company of New Mexico - Gas Services

Environmental Services Division - Alvarado Square, MS-0408 Albuquerque, NM 87158

Contact: Maureen Gannon

PNMGS: 98gwrpt.doc 1-Apr-98



LAB: (505) 325-1556

12 June 1997

Denver Bearden PNM Gas Services 603 W. Elm Street Farmington, NM 87401

#### Reference:

Project Name: Florance 40

Project Loc.: 970508: MW-1, MW-3, MW-4, MW-5

On Site ID: COC Record No. 5553

Dear Denver.

Enclosed please find the analytical results for your project referenced above. Please note that the PAH EPA 8310 analysis for MW-1 was not performed due to a shipping error. Attached you will find a Sample Protocol Nonconformance Worksheet from Southern Petroleum Laboratory (SPL) stating sample condition upon receipt. UPS did not deliver via next day service and subsequently by the time the samples arrived at SPL all ice had been spent. On Site Technologies will cover all costs incurred for the re-analysis of PAH EPA 8310 for MW-1.

We trust you will find all in order and should you have any questions regarding these results please contact me at any time. (505) 325-2432.

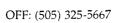
Thank you once again for your consideration.

Sincerely,

David Cox

Laboratory Manager

cc: Maureen Gannon, PNM Gas Services





#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

20-May-97

Company: PNM Gas Services

COC No.:

5553

Sample No.:

14646

Address: City, State: Farmington, NM 87401

603 W. Elm

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance 40

**Project Location:** 

Trip Blank

NR Time:

NR

Sampled by: Analyzed by: MG/MS DC

Date: Date:

16-May-97

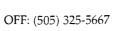
Sample Matrix:

Liquid

	Results as	Unit of	Limit of	Unit of
Parameter	Received	Measure	Quantitation	Measure
Benzene	ND	ug/L	0.2	ug/L
Toluene	ND	ug/L	0.2	ug/L
Ethylbenzene	ND	ug/L	0.2	ug/L
m,p-Xylene	ND	ug/L	0.2	ug/L
o-Xylene	ND	ug/L	0.2	ug/L
TOTAL	ND	ug/L		

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography





#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

20-May-97

Company: PNM Gas Services

COC No.:

*5553* 

Address:

603 W. Elm

Sample No.:

14501

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance 40

**Project Location:** 

9705081330; MW-1

MG/MS

Date: Date: 8-May-97 Time:

13:30

Sampled by: Analyzed by: Sample Matrix:

DC Liquid 16-May-97

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene	3643	ug/L	20	ug/L
Toluene	11525	ug/L	20	ug/L
Ethylbenzene	1097	ug/L	20	ug/L
m,p-Xylene	12661	ug/L	20	ug/L
o-Xylene	3344	ug/L	20	ug/L

32270

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

TOTAL



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

20-May-97

Company: PNM Gas Services

COC No.:

*5553* 

Address:

603 W. Elm

Sample No.:

14502

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance 40

**Project Location:** 

9705081430; MW-3

Sampled by:

MG/MS

Date: Date: 8-May-97 Time:

16-May-97

14:30

Analyzed by: Sample Matrix:

Liquid

DC

Parameter	Results as	Unit of Measure	Limit of Quantitation	Unit of Measure	
Benzene	97	ug/L	2	ug/L	
Toluene	27	ug/L	2	ug/L	
Ethylbenzene	115	ug/L	2	ug/L	
m,p-Xylene	266	ug/L	2	ug/L	
o-Xylene	36	ug/L	2	ug/L	
TOTAL	542	ug/L			

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 20-May-97

Company: PNM Gas Services

COC No.:

5553

Address:

Sample No.:

14503

City, State: Farmington, NM 87401

603 W. Elm

Job No.:

2-1000

PNM Gas Services - Florance 40

Project Name: **Project Location:** 

9705081500; MV-4

8-May-97 Time:

15:00

Sampled by: Analyzed by: MG/MS DC

Date: Date:

16-May-97

Sample Matrix:

Liquid

	Results as	Unit of	Limit of	Unit of	
Parameter	Received		Quantitation	Measure	
Benzene	ND	ug/L	0.2	ug/L	
Toluene	0.3	ug/L	0.2	ug/L	
Ethylbenzene	ND	ug/L	0.2	ug/L	
m,p-Xylene	0.5	ug/L	0.2	ug/L	
o-Xylene	ND	ug/L	0.2	ug/L	
TOTAL	0.8	ug/L			

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By:



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

20-May-97

Company: PNM Gas Services

COC No.:

5553

14504

Address:

603 W. Elm

Sample No.:

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance 40

**Project Location:** 

9705081530; MW-5

Date:

8-May-97 Time:

15:30

Sampled by: Analyzed by:

MG/MS DC

Date:

16-May-97

Sample Matrix:

Liquid

·	Results as	Unit of	Limit of	Unit of
Parameter	Received		Quantitation	Measure
Benzene	ND	ug/L	0.2	ug/L
Toluene	0.3	ug/L	0.2	ug/L
Ethylbenzene	ND	ug/L	0.2	ug/L
m,p-Xylene	0.4	ug/L	0.2	ug/L
o-Xylene	ND	ug/L	0.2	ug/L
TOTAL	0.6	ug/L		

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

LAB: (505) 325-1556

#### **QUALITY ASSURANCE REPORT**

for EPA Method 8020

Date Analyzed: 16-May-97

Internal QC No.:

0527-STD

Surrogate QC No.:

0528-STD

Reference Standard QC No.: 0529/30-QC

#### Method Blank

	0	Unit of
Parameter	Result	Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

#### Calibration Check

	Unit of	True	Analyzed			
Parameter	Measure	Value	Value	% Diff	Limit	
Benzene	ppb	20.0	18.3	9	15%	
Toluene	ppb	20.0	19.0	5	15%	
Ethylbenzene	ppb	20.0	19.3	4	15%	
m,p-Xylene	ppb	40.0	37.1	7	15%	
o-Xylene	ppb	20.0	19.3	4	15%	

#### Matrix Spike

	1- Percent	2 - Percent			 	
Parameter	Recovered	Recovered	Limit	%RSD	Limit	
Benzene	90	87	(39-150)	2	20%	
Toluene	93	90	(46-148)	2	20%	
Ethylbenzene	92	89	(32-160)	2	20%	
m,p-Xylene	90	87	(35-145)	2	20%	
o-Xylene	93	90	(35-145)	2	20%	

#### Surrogata Pagavarias

	S1 Percent	S2 Percent		S1 Percent	S2 Percent
Laboratory Identification	Recovered	Recovered	Laboratory Identification	Recovered	Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
14646-5553	95				
14501-5553	94				
14502-5553	94				
14503-5553	95				
14504-5553	95				(n)
14304-3333	35				5/2

\$1: Flourobenzene

## RECEIVED JUN 0 9 1997 eet

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Prep	ared by: S. West			Date/Tim	e:				
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## CHAIN OF CUSTODY RECORD

Date: \_



TECHNOLOGIES, LTD.

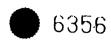
657 W. Maple • P. O. Box 2606 • Farmington NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

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### CHAIN OF CUTODY RECORD



TECHNOLOGIES, LTD.

Date: \_\_\_\_\_

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657 W. Maple • P. O. Box 2606 • Farmington NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchas	se Order No.:	Job No.						Name	Na.c		<u> </u>				Title			
	Name						_ 은											
O U	Company			Dept.			er.	Company ON SITE TECH.  Mailing Address 617 E. MURRAY DR.  City, State, Zip FARMINGTON, NM 8740  Telephone No. 505-325-5667 Telefax No.505-325-6256										
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### CHAIN OF CUSTODY RECORD

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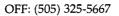
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Page	 of	<u> </u>

657 W. Maple • P. O. Box 2606 • Farmington NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchas	e Order No.:		Job No.						Name		Ma	ureen	Ganr	non		Title		
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SEP	Address	603 W. Elm Street						RESL	City, S	tate, Zip	All	buque	rque.	NM 8	7158			
	City, State, Zip	Farmington, NM 874	101		<u> </u>			Œ	Teleph	Telephone No. 505-848-2974 Telefax No.								
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Distribution: White - On Site Yellow - LAB						Dink 9	Sampler	Goldon	rod – Cli	ont				<u> </u>				

X"Het" Sample





#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 27-Aug-97

Company: PNM Gas Services

COC No.:

5648

Address:

Sample No.:

15771

City, State: Farmington, NM 87401

603 W. Elm

Job No.:

2-1000

PNM Gas Services - Florance Z 40

Project Name: **Project Location:** 

9708131330; MW-1

Date:

13-Aug-97 Time:

13:30

Sampled by: Analyzed by:

DC

MG/MS

Date:

22-Aug-97

Sample Matrix:

Liquid

Parameter		Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene		3653	ug/L	100	ug/L
Toluene		12785	ug/L	100	ug/L
Ethylbenzene		1160	ug/L	100	ug/L
m,p-Xylene		12819	ug/L	100	ug/L
o-Xylene		3372	ug/L	100	ug/L
	TOTAL	33789	ug/L		

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By:

P.O. BOX 2606 • FARMINGTON, NM 87499

- To upon total Beending Industry, with the Endr of her m-



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 27-Aug-97

Company: PNM Gas Services

COC No.:

5648

Address:

15810

603 W. Elm

Sample No.:

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance Z 40

Project Location:

9708131400; MW-4 MG/MS

13-Aug-97 Time:

14:00

Sampled by: Analyzed by:

DC

Date: Date:

22-Aug-97

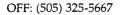
Sample Matrix:

Liquid

	Results as	Unit of	Limit of	Unit of
Parameter	Received	Measure	Quantitation	Measure
	<u> </u>			
Benzene	ND ND	ug/L	1.0	ug/L
Toluene	ND	ug/L	1.0	ug/L
Ethylbenzene	ND	ug/L	1.0	ug/L
m,p-Xylene	ND	ug/L	1.0	ug/L
o-Xylene	ND	ug/L	1.0	ug/L
TOTAL	ND	ug/L		

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography





#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 27-Aug-97

Company: PNM Gas Services

COC No.:

5648

Address:

603 W. Elm

Sample No.:

15811

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance Z 40

Project Location:

9708131430; MW-5

Date:

13-Aug-97 Time:

14:30

Sampled by: Analyzed by:

MG/MS DC

Date:

22-Aug-97

Sample Matrix:

Liquid

	Results as	Unit of	Limit of	Unit of
Parameter	Received	Measure	Quantitation	Measure
Benzene	3683	ug/L	100	ug/L
Toluene	12739	ug/L	100	ug/L
Ethylbenzene	1143	ug/L	100	ug/L
m,p-Xylene	12695	ug/L	100	ug/L
o-Xylene	3391	ug/L	100	ug/L
TOTAL	33651	ug/L		

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By:

P.O. BOX 2606 • FARMINGTON, NM 87499 - Tampingony Brandric had same data for Tamping or -



LAB: (505) 325-1556

#### **QUALITY ASSURANCE REPORT**

for EPA Method 8020

Date Analyzed: 22-Aug-97

Internal QC No.:

0527-STD

Surrogate QC No.:

0528-STD

Reference Standard QC No.: 0529/30-QC

#### Method Blank

		Unit of
Parameter	Result	Measure
Average Amount of All Analytes In Blank	< 1.0	ppb

#### **Calibration Check**

	Unit of	True	Analyzed			
Parameter	Measure	Value	Value	RPD	Limit	
Benzene	ppb	20.0	19.7	2	15%	
Toluene	ppb	20.0	20.4	2	15%	
Ethylbenzene	ppb	20.0	20.6	3	15%	
m,p-Xylene	ppb	40.0	39.4	2	15%	
o-Xylene	ppb	20.0	20.4	2	15%	

Matrix Spike

mann	1- Percent	2 - Percent			T
Parameter	Recovered	Recovered	Limit	RPD	Limit
Benzene	96	91	(39-150)	3	20%
Toluene	100	97	(46-148)	3	20%
Ethylbenzene	100	97	(32-160)	3	20%
m,p-Xylene	96	93	(35-145)	3	20%
o-Xylene	99	96	(35-145)	2	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
15771-5648	96				
15810-5648	97				
15811-5648	97				
				TUR	(00)
				8/29/97	ehe/7

S1: Flourobenzene



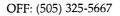
### CHAIN OF CUSODY RECORD

Date: 8/13/97

	<b>5</b> 048	
1	· •	
Page	of	

657 W. Maple • P. O. Box 2606 • Farmington NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchas	se Order No.:		Job No.						Name		Mau	reen C	annon		Title	)		
	Name	Denver Bearden						REPORT RESULTS TO	Comp	any	PNN	/ Gas	Service	s				
220	Company	PNM Gas Services			Dept. 32	24-3763		PO	Mailin	g Addres	s Alve	erado S	Square,	Mail St	op 04	108		
SEND INVOICE TO	Address	603 W. Elm Street						RESI	City, S	itate, Zip	Albı	uquerq	ue, NM	87158				
	City, State, Zip	Farmington, NM 87	401			· · · · · · · · · · · · · · · · · · ·			Telepi	none No.	505	-848-29	974	T	elefax	No.		
Samplin	g Location:											A N	IAI VOI	S REQU	CCTE	- n		
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Sampler		ilianos						Number of Containers	/		/ /				/	/ /	/ /	İ
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-	SAM	MPLE IDENTIFICATION		DATE	MPLE TIME	MATRIX	PRES.	6		₹/	/ /	/ /	/ /				LAB	ID
	9708	3131330	MW-1			Hio	Hel	2	X				_{_			f =	15771-5	-, , ,   \
	9708	2131400	MW-4		<del>                                     </del>		Itcl	2	X						-		15810-	10-70
	4708	3131400	MW-4 MW-S			<b>-</b>	HCL	3	X								15811	
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Relinqui	ished by:				Date/Time			Rece	eived by							Date/Tin	ne	
Method	of Shipment:					***		Rust	n	2	24-48 Hou	ırs	10 Work	ing Days	Spec	cial Instru		
	Ma	) //			Date 5	113/9	7										ts to be se	ent
Authoriz	zed by:(	Client Signature Must Acco	ompany Request)													to Do1	h parties.	
L			Distri	bution: W	hite - On Site	e Yellow	- LAB	Pink –	Sampler	Golden	rod - Clier	nt			1			





#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

5-Dec-97

Company: PNM Gas Services

COC No.:

7084

Address:

Sample No.:

16979

City, State: Farmington, NM 87401

603 W. Elm

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance Z 40

**Project Location:** 

9711251330; MVV-1

Date:

25-Nov-97 Time:

13:30

Sampled by: Analyzed by:

HR

Date:

3-Dec-97

Sample Matrix:

Liquid

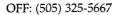
MG/MS

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene	3942	ug/L	40	ug/L
Toluene	14574	ug/L	40	ug/L
Ethylbenzene	1262	ug/L	40	ug/L
m,p-Xylene	13903	ug/L	40	ug/L
o-Xylene	3665	ug/L	40	ug/L
TOTAL	37345	ug/L		

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By:





#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

5-Dec-97

Company: PNM Gas Services

COC No.:

7084

Address:

Sample No.:

16980

City, State: Farmington, NM 87401

603 W. Elm

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance Z 40

Project Location:

9711251400: MW-4

MG/MS

Date:

25-Nov-97 Time:

14:00

Sampled by: Analyzed by: Sample Matrix:

HR Liquid Date:

3-Dec-97

_	Results as	Unit of	Limit of	Unit of	
Parameter	Received	Measure	Quantitation	Measure	
Benzene	ND	ug/L	0.2	ug/L	
Toluene	ND	ug/L	0.2	ug/L	
Ethylbenzene	ND	ug/L	0.2	ug/L	
m,p-Xylene	ND	ug/L	0.2	ug/L	
o-Xylene	ND	ug/L	0.2	ug/L	

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By:



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

5-Dec-97

Company: PNM Gas Services

COC No.:

7084

Address:

603 W. Elm

Sample No.:

16981

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance Z 40

Project Location:

9711251430: MW-5

MG/MS

Date:

25-Nov-97 Time:

14:30

Sampled by: Analyzed by: Sample Matrix:

HR Liquid

Date:

3-Dec-97

	Results as	Unit of	Limit of	Unit of	
Parameter	Received	Measure	Quantitation	Measure	
Benzene	ND	ug/L	0.2	ug/L	
Toluene	ND	ug/L	0.2	ug/L	
Ethylbenzene	ND	ug/L	0.2	ug/L	
m,p-Xylene	ND	ug/L	0.2	ug/L	
o-Xylene	ND	ug/L	0.2	ug/L	

ND

ug/L

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

TOTAL

Approved By:

 $\mathcal{H}_{\mathcal{A}}(\mathcal{B}) = \mathcal{H}_{\mathcal{A}}(\mathcal{A}) + \mathcal{H}_{\mathcal{A}}(\mathcal{A}) + \mathcal{H}_{\mathcal{A}}(\mathcal{A})$ 



LAB: (505) 325-1556

#### **QUALITY ASSURANCE REPORT**

for EPA Method 8020

Date Analyzed: 3-Dec-97

Internal QC No.:

0559-STD

Surrogate QC No.:

0556-STD

Reference Standard QC No.: 0529/30-QC

#### Method Blank

	[	Unit of
Parameter	Result	Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

#### Calibration Check

Parameter	Unit of Measure	True	Analyzed Value	RPD .	Limit
rarameter	ivieasure	Value	Value	RPU	Limit
Benzene	ppb	20.0	19.3	3	15%
Toluene	ppb	20.0	20.2	1	15%
Ethylbenzene	ppb	20.0	20.4	2	15%
m,p-Xylene	ppb	40.0	39.6	1	15%
o-Xyiene	ppb	20.0	20.3	1	15%

Matrix Snike

IVIALITX	Spike					
_	1- Percent	2 - Percent				
Parameter	Recovered	Recovered	Limit	RPD	Limit	
Benzene	131	100	(39-150)	2	20%	
Toluene	106	101	(46-148)	2	20%	
Ethylbenzene	102	91	(32-160)	2	20%	
m,p-Xylene	93	89	(35-145)	2	20%	
o-Xylene	98	95	(35-145)	2	20%	

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
16979-7084	94	<u> </u>			
16980-7084	94				
16981-7084	94				
				4M	(DE)
				12/8/97	12/5/97

S1: Flourobenzene

- Trains on a Brown and School of the Total

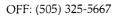


## CHAIN OF CUSTODY RECORD Date: 11/25/97

Page:	(	 of	 L

612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase	Order No.:		Job No.		_			7	Name		Mau	reen G	annon	Ti	tle			
Ш	Name	Denver Bearden							Compa	iny	PNM	Gas S	ervice	s				
SEND INVOICE TO	Company	PNM Gas Services		Dept.	324-3763			REPORT ESULTS 1	Mailing	Address	Alve	rado S	quare,	Mail S	top 04	08		
SEI IVC	Address	603 W. Elm Street						ES IS	City, St	ate, Zip	Albu	querq	ue, NM	87158				
<u> </u>	City, State, Zip	Farmington, NM 87	401					œ	Telepho	one No.	505-	848-29	74	Te	elefax N	lo.		
Sampling	Location:		<u> </u>										(0)0.5					
	FLORA	NCE Z 40						er of ners		7.7		ANAL	YSIS R	Z Z	7	7	7 7	
Sampler:	Mgauns	~/MSikelian	N 065					Number of Containers			//	/ /	//	//	//	//	/	
	SAMPLE ID	PENTIFICATION		SAM DATE	PLE TIME	MATRIX	PRES.		(4)			$\angle$	$\angle$	_	$\angle$	$\angle$	LAB II	
97	11251330	MWI		11/25/43		H20	HCR	2	X			<u> </u>					16979-70	784
	11251400	mw4		11/25/4		Hzo		2	Х								16980-	$\perp \! \! \! \! \! \! \! \! \! \! \perp \! \! \! \! \! \! \! \!$
97	11251430	<u>MW5</u>		11/15/91		H20	HCe	2	1 1			<u> </u>					16981-	V
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	Shipment:					<del></del>		Rush		24-48	Hours	10 V	orking/	Days	Special	Instru	ctions:	
	ed by: <u>Haure</u>	Lull August ure <u>Must</u> Accompany Red	quest)		5 97 nite - On Site	Yellow - I	AR P	ink - Samr	llet Golde	nrod - Client				-	·	Results	s to be sent th parties.	





#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

2-Feb-98

Company: PNM Gas Services

COC No.:

7137

Address:

Sample No.:

17405

City, State: Farmington, NM 87401

603 W. Elm

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance 40

Project Location:

9801231230; MW-1

MS/RD

Date:

23-Jan-98 Time:

12:30

Sampled by: Analyzed by: Sample Matrix:

DC Liquid

Date:

27-Jan-98

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure	
Benzene	4421	ug/L	20	ug/L	
Toluene	15035	ug/L	20	ug/L	
Ethylbenzene	1181	ug/L	20	ug/L	
m,p-Xylene	15143	ug/L	20	ug/L	
o-Xylene	4041	ug/L	20	ug/L	

39821 ug/L

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By:



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

2-Feb-98

Company: PNM Gas Services

COC No.:

7137

Address:

Sample No.:

17406

City, State: Farmington, NM 87401

603 W. Elm

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance 40

**Project Location:** 

9801231300; MW-4

MS/RD

Date:

23-Jan-98 Time:

13:00

Sampled by: Analyzed by: Sample Matrix:

DC Liquid

Date:

27-Jan-98

Parameter	Results as	Unit of	Limit of Quantitation	Unit of
Parameter	Received	Measure	Quantitation	Measure
Benzene	ND	ug/L	0.2	ug/L
Toluene	ND	ug/L	0.2	ug/L
Ethylbenzene	ND	ug/L	0.2	ug/L
m,p-Xylene	ND	ug/L	0.2	ug/L
o-Xylene	ND	ug/L	0.2	ug/L

ND

ug/L

ND - Not Detected at Limit of Quantitation

TOTAL

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By:



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

2-Feb-98

Company: PNM Gas Services

COC No.:

7137

Address:

603 W. Elm

Sample No.:

17407

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - Florance 40

**Project Location:** 

9801231330; MW-5

Date:

23-Jan-98 Time:

13:30

Sampled by: Analyzed by: MS/RD DC

Date:

27-Jan-98

Sample Matrix:

Liquid

		Results as	Unit of	Limit of	Unit of		
Parameter		Received	Measure	Quantitation	Measure		
Benzene		4299	ug/L	20	ug/L		
Toluene		14477	ug/L	20	ug/L		
Ethylbenzene		1120	ug/L	20	ug/L		
m,p-Xylene		14399	ug/L	20	ug/L		
o-Xylene		3882	ug/L	20	ug/L		
	TOTAL	38178	ug/L				

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved By:

LAB: (505) 325-1556

#### QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 27-Jan-98

Internal QC No.:

0559-STD

Surrogate QC No.:

0567-STD

Reference Standard QC No.: 0529/30-QC

#### Method Blank

		Unit of
Parameter	Result	Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

#### Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	RPD	Limit	
Panyana		20.0	21.2		150/	
Benzene Toluene	ppb ppb	20.0	21.3	<u>6</u> 6	15% 15%	
Ethylbenzene	ppb	20.0	21.6	8	15%	
m,p-Xylene	ppb	40.0	41.1	3	15%	
o-Xylene	ppb	20.0	21.5	7	15%	

Matrix Spike

	1- Percent	2 - Percent			
Parameter	Recovered	Recovered	Limit	RPD	Limit
Benzene	111	103	(39-150)	4	20%
Toluene	119	102	(46-148)	4	20%
Ethylbenzene	110	105	(32-160)	4	20%
m,p-Xylene	110	100	(35-145)	4	20%
o-Xylene	111	105	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
17405-7137	100				
17406-7137	101			:	
17407-7137	101				
				An	(DL)
				2/3/98	2/2/98

S1: Flourobenzene



## CHAIN OF CUSTODY RECORD Date: 1/23/98

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age:	/ of	/
age.	OI _	

612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.: Job No.				۲۵	Name Maureen Gannon Title							<del></del>							
ш	Name	Denver Bearden																	
SEND INVOICE TO	Company	PNM Gas Services		Dept.	Dept. 324-3763		-	REPORT ESULTS 1	Mailing Address Alverado Square, Mail Stop 0408										
SEN (VO)	Address	603 W. Elm Street						E I	City, State, Zip Albuquerque, NM 87158										
2	City, State, Zip	Farmington, NM 87401						~	Teleph	one No.		505-84	8-297	74	To	elefax	No.		
Sampling Location:						<b>+</b> %	ANALYSIS REQUESTED												
Flor	rance. 40							ner.	12/1///////										
	-Ance 40	.D.						Number of Containers	4			//	////			////			
	SAMPLE ID	ENTIFICATION		SAM DATE	TIME	MATRIX			6									LA	3 ID
9801.	23/230	ηω	<u> </u>	1/23/98		4.0		2	X									17405 -	7137
	231300	ηω			1300			ュ	X									A406-	
9801	23/330	m w	5	23/78	/ <u>33</u> 0	420	HCI	2	X									17407 -	
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Method of Shipment:					Rush		24-4	8 Hou	rs	10 W	orking	Days	Specia	ıl Instru	ctions:				
Authorized by: Ronald Deductor Date 1/23/98 (Client Signature Must Accompany Request)														s to be sen oth parties.	ıt				
				Distribution: Wi	nite . On Site	Vellow - I	AR P	ink - Samr	ler Golde	enrod - Clien	nt					L			